

Claims

1. Computer-based risk detection system (1) comprising:
 - a server (10) connected to a communication network (2),
 - means for receiving on the server (10) risk information from geographically distributed computerised data sources (3A, 3C, 3D, 3E, 3G, 3H) located in first geographical areas (A, C, D, E, G, H) via the communication network (2), said risk information including an identification of a specific risk, a rating of said specific risk, and information for associating said specific risk with one of the first geographical areas (A, C, D, E, G, H),
 - means for storing received risk information, the identification of the specific risk and the rating of the specific risk being assigned to one of the first geographical areas (A, C, D, E, G, H),
 - stored correlation factors (631) associated with geographical areas (A, B, C, D, E, F, G, H) and/or stored data about spreading patterns (632),
 - detection means (14) for detecting a specific risk emerging in one of the first geographical areas (A, C, D, E, G, H) and spreading to one or more second geographical areas (B, F) based on stored risk information (61) including the rating of the specific risk assigned to the one of the first geographical areas (A, C, D, E, G, H) and based on the stored correlation factors (631) and/or data about spreading patterns (632), and
 - signalling means (13) for providing to an interface (5, 5', 5'') output data depending on the detected emerging risk and the second geographical areas (B, F).

2. Risk detection system (1) according to claim 1, characterised in that the interface (5, 5') is part of the risk detection system (1), in that the interface (5, 5') is designed to store the output data provided by the signalling means (13), and in that the interface (5, 5') and the output data stored therein are accessible to devices (7, 7') external to the risk detection system (1).
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3. Risk detection system (1) according to one of the claims 1 or 2, characterised in that it further comprises stored area attributes (63), and in that the detection means (14) are designed to detect the emerging specific risk based on stored area attributes (63) associated with the one of the first geographical areas (A, C, D, E, G, H) and with the second geographical areas (A, B, C, D, E, F, G, H).
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4. Risk detection system (1) according to one of the claims 1 to 3, characterised in that the detection means (14) include an expert system (141) designed to detect the emerging specific risk based on stored rules (62).
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5. Risk detection system (1) according to one of the claims 1 to 4, characterised in that it further comprises a database, in that the means for storing received risk information are designed to store the received risk information in the database, and in that the detection means (14) are designed to detect the emerging specific risk by periodically extracting risk information (61) stored in the database.
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6. Risk detection system (1) according to one of the claims 1 to 5, characterised in that the detection means (14) are designed to generate automatically a message to an administrator upon detection of an emerging specific risk.
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7. Risk detection system (1) according to one of the claims 1 to 6, characterised in that the specific risks include risks associated with technical, ecological, geological, meteorological, epidemiological, cultural, political, and/or economical systems, and in that the risk detection system (1) further comprises means to relate a detected emerging risk to its relative impact on a technical product, a technical system, and/or an insurance product.
8. Risk detection system (1) according to one of the claims 1 to 7, characterised in that said risk information includes information relating to a relative impact of an identified specific risk on a technical product, a technical system, and/or an insurance product, and in that the signalling means (13) are designed to include in the output data provided to the interface (5, 5', 5'') state information or instructions.
9. Computer program product comprising: computer program code means for controlling one or more processors of a computer-based risk detection system (1) such
- that the server (10) receives risk information from geographically distributed computerised data sources (3A, 3C, 3D, 3E, 3G, 3H) located in first geographical areas (A, C, D, E, G, H) via a communication network (2) connected to the server (10), said risk information including an identification of a specific risk, a rating of said specific risk, and information for associating said specific risk with one of the first geographical areas (A, C, D, E, G, H),
- that the server (10) stores the received risk information, the identification of the specific risk and the rating of the specific risk being assigned to one of the first geographical areas (A, C, D, E, G, H),

that the server (10) stores data about spreading patterns and/or correlation factors (631) associated with geographical areas (A, B, C, D, E, F, G, H),

5 that the server (10) detects a specific risk emerging in one of the first geographical areas (A, C, D, E, G, H) and spreading to one or more second geographical areas (B, F) based on stored risk information (61) including the rating of the specific risk assigned to the one of the first geographical areas (A, C, D, E, G, H) and based on the stored correlation factors (631) and/or data about spreading patterns (632), and

10 that the server (10) provides to an interface (5, 5', 5'') output data depending on the detected emerging risk and the second geographical areas (B, F).

10. Computer program product according to claim 9, characterised in that it comprises further computer program code means for controlling the
15 processors of the server (10) such that the server (10) stores said output data in the interface (5), the interface (5) being located in the server (10), and such that the server (10) provides to devices (7) external to the server (10) access to the interface (5) and to the output data stored therein.

20 11. Computer program product according to one of the claims 9 or 10, characterised in that it comprises further computer program code means for controlling the processors of the server (10) such that the server (10) stores area attributes, and in that the server (10) detects the emerging specific risk based on stored area attributes (63) associated with the one of the first geographical areas (A, C, D, E, G, H) and with the second
25 geographical area (A, B, C, D, E, F, G, H).

12. Computer program product according to one of the claims 9 to 11, characterised in that it comprises further computer program code means

for controlling the processors of the server (10) such that the server (10) stores rules for an expert system (141), and such that the server (10) executes the expert system (141), the expert system (141) being designed to detect the emerging specific risk based on the stored rules (62).

5 13. Computer program product according to one of the claims 9 to 12, characterised in that it comprises further computer program code means for controlling the processors of the server (10) such that the server (10) stores received risk information in a database, and such that the server
10 (10) detects the emerging specific risk by periodically extracting risk information (61) stored in the database.

14. Computer program product according to one of the claims 9 to 13, characterised in that it comprises further computer program code means for controlling the processors of the server (10) such that the server (10) generates automatically a message to an administrator upon detection of
15 an emerging specific risk.

15. Computer program product according to one of the claims 9 to 14, characterised in that it comprises further computer program code means for controlling the processors of the server (10) such that the server (10) processes risk information related to risks associated with technical,
20 ecological, geological, meteorological, epidemiological, cultural, political, and/or economical systems, and such that the server (10) relates a detected emerging risk to its relative impact on a technical product, a technical system, and/or an insurance product.

16. Computer program product according to one of the claims 9 to 15,
25 characterised in that it comprises further computer program code means for controlling the processors of the server (10) such that the server (10) receives and stores the risk information, said risk information including in

addition information relating to a relative impact of an identified specific risk on a technical product, a technical system, and/or an insurance product, and such that the server (10) includes in the output data provided to the interface (5, 5', 5'') state information or instructions.

5 17. Computer-based method for detecting risks, comprising:

transmitting from geographically distributed computerised data sources (3A, 3C, 3D, 3E, 3G, 3H) located in first geographical areas (A, C, D, E, G, H) via a communication network (2) risk information to a server (10), said risk information including an identification of a specific risk, a rating of said
10 specific risk, and information for associating said specific risk with one of the first geographical areas (A, C, D, E, G, H),

receiving on the server (10) the risk information transmitted by the geographically distributed computerised data sources (3A, 3C, 3D, 3E, 3G, 3H),

15 storing by the server (10) of received risk information, the identification of the specific risk and the rating of the specific risk being assigned to one of the first geographical areas (A, C, D, E, G, H),

storing in a memory (6) data about spreading patterns and/or correlation factors (631) associated with geographical areas (A, B, C, D, E, F, G, H),

20 detecting by the server (10) a specific risk emerging in one of the first geographical areas (A, C, D, E, G, H) and spreading to one or more second geographical areas (B, F) based on stored risk information (61) including the rating of the specific risk assigned to the one of the first geographical areas (A, C, D, E, G, H) and based on the stored correlation
25 factors (631) and/or data about spreading patterns (632), and

providing by the server (10) to an interface (5, 5', 5'') output data depending on the detected emerging risk and the second geographical areas (B, F).

- 5 18. Computer-based method according to claim 17, characterised in that said output data is stored by the server (10) in the interface (5, 5'), and in that the interface (5, 5') and the output data stored therein are made accessible to devices (7, 7') external to the server (10).
- 10 19. Computer-based method according to one of the claims 17 or 18, characterised in that area attributes are stored in a memory (6), and in that detecting the emerging specific risk is based on stored area attributes (63) such as correlation factors (631) associated with the one of the first geographical areas (A, C, D, E, G, H) and with the second geographical area (A, B, C, D, E, F, G, H).
- 15 20. Computer-based method according to one of the claims 17 to 19, characterised in that rules for an expert system (141) are stored in a memory (6), and in that the emerging specific risk is detected by means of an expert system (141) based on the stored rules (62).
- 20 21. Computer-based method according to one of the claims 17 to 20, characterised in that the received risk information is stored in a database, and in that the emerging specific risk is detected by periodically extracting risk information (61) stored in the database.
22. Computer-based method according to one of the claims 17 to 21, characterised in that a message to an administrator is generated automatically upon detection of an emerging specific risk.
- 25 23. Computer-based method according to one of the claims 17 to 22, characterised in that included in the specific risks are risks associated with

technical, ecological, geological, meteorological, epidemiological, cultural, political, and/or economical systems, and in that a detected emerging risk is related to its relative impact on a technical product, a technical system, and/or an insurance product.

- 5 24. Computer-based method according to one of the claims 17 to 23,
characterised in that included in the risk information is information relating
to a relative impact of an identified specific risk on a technical product, a
technical system, and/or an insurance product, and in that state
information or instructions are included in the output data provided to the
10 interface (5, 5', 5").